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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,639	11/05/2002	Jeffrey L. Rice	3707	5968

27256 7590 09/17/2004

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EXAMINER

JUSKA, CHERYL ANN

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 09/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/065,639	RICE ET AL.	
	Examiner	Art Unit	
	Cheryl Juska	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 19 is/are pending in the application.
- 4a) Of the above claim(s) 1-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-17 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's Amendment After Final submitted on August 30, 2004 has been entered. Said amendment is sufficient to overcome the anticipation rejection based upon Hudkins US 6,296,733) as set forth in section 4 of the last Office Action (Final Rejection). Specifically, applicant has amended the claims as discussed in the Advisory Action of August 19, 2004, and the Interview of August 30, 2004. As such, the 102 rejection of claims 12, 14, 15, and 18 is hereby withdrawn. Additionally, the 103 rejections based upon Hudkins as set forth in sections 5 and 6 of the last Office Action are hereby withdrawn. However, an updated search has produced new art of record for which to base a rejection upon. Said rejections are set forth below.
2. Claims 12-16 have been amended as requested. claims 18 and 20 are cancelled. Thus, the pending claims are 1-17 and 19, with claims 1-11 being withdrawn as non-elected.

Specification

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:
 - a. The subject matter of claims 14 and 15, wherein the ethylene-octene copolymers have the recited melt index and density ranges, is not supported by the specification as originally filed.

b. The desired temperature of claim 19 is recited as 165-185°C. However, the specification teaches the desired temperature for pressing the mat in the mold is 155-175°C. Thus, claim 19 lacks antecedent basis in the specification.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 12-17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,296,733 issued to Hudkins et al. in view of US 6,787,593 issued to Bell et al.

Hudkins discloses a floor mat and a method of making said floor mat (title). The floor mat comprises a fibrous face cover layer that may be a tufted carpet (i.e., pile tufted into a primary backing) (col. 3, lines 3-7). The backing layer may be a thermoplastic layer that is recyclable with the cover layer (col. 3, lines 8-9). The floor mat is made in an apparatus containing a mold, four presses, and a cooling station (col. 3, lines 61-65). Three presses have one surface heated to a temperature of 121.1-260°C (col. 4, line 66-col. 5, line 7 and col. 5, lines 15-21 and 54-56). The cooling station comprises a press having a temperature of 4.4-48.9°C (col. 5, lines 56-61). The floor mat is made by coupling the cover layer to the thermoplastic backing layer by extrusion of said thermoplastic layer and molding the layers together under sufficient time, temperature, and pressure (col. 6, lines 7-12 and col. 8, lines 19-31). The pressure of the first and second presses ranges from 10 to 50 psi (col. 6, lines 27-30 and 46-47),

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the pressure of the third press ranges from 50 to 180 psi (col. 6, lines 55-58), and the pressure of the fourth press ranges from 1 to 10 psi (col. 7, lines 42-44).

Thus, Hudkins teaches the present invention of claim 12 with the exception of the metallocene catalyzed ethylene-octene copolymer. However, said copolymer is known in the art of carpet backings for vehicle mats. For example, Bell teaches sound-deadening composites of metallocene copolymers comprising ethylene and a comonomer of butene, hexene, or octene (abstract and col. 2, lines 10-17). Said copolymer has a melt flow rate of 1-10 g/10 min and a density of less than 0.9 g/cc (col. 2, lines 17-23). The preferred metallocene copolymer is an ethylene-octene copolymer, such as Exact[®] by Exxon and Engage[®] by Dow (col. 2, lines 34-65). Note applicant employs the same commercial polymers for the present invention (specification, section [0019]). The copolymer is blended in a mixer with plasticizer and filler and extruded into pellets (col. 2, line 66-col. 3, line 11 and col. 3, line 59-col. 4, line 4). Said pellets are then extruded to make unsupported sheets or vehicle carpet backings (col. 3, lines 39-63 and Examples 1 and 2).

Since Hudkins is silent with respect to specific recyclable thermoplastic compositions for the backing layer, one must look to the prior art, such as Bell, for suitable materials. Thus, it would have been obvious to one of ordinary skill in the art to employ the ethylene-octene copolymer taught by Bell in the Hudkins process of making a vehicle floor mat with the expectation of producing a recyclable rubber-like floor mat. Therefore, claim 12 is rejected as being obvious over the cited prior art.

With respect to claim 13, as noted above, Bell teaches the limitations of mixing the copolymer with plasticizer and filler. Hence, claim 13 is also rejected.

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With respect to claims 14 and 15, Bell also teaches ethylene-octene copolymers having the claimed density and a melt index within the claimed 2-4 range. However, Bell does not explicitly teach a copolymer having the claimed melt index range of 25-35. As noted above, Bell teaches the same commercial products Exact[®] by Exxon and Engage[®] by Dow as applicant. Applicant is hereby given Official Notice that it is known these products can have a melt index of in the claimed range. Specifically, Exact[®] 4023 has a melt index of 30. Thus, it would have been obvious to one skilled in the art to employ copolymers having the claimed 25-35 melt index, since said copolymers are readily available as a commercial product. Additionally, it would have been readily obvious to one skilled in the art to employ a combination or blend of ethylene-octene copolymers since it has been held obvious to combine two compositions each of which is taught by prior art to be useful for the same purpose in order to form a third composition that is to be used for very same purpose. The idea of combining them flows logically from their having been individually taught in prior art. Thus, the claims which are no more than mixing together of two conventional compositions are set forth as obvious subject matter. *In re Kerkhoven*, 205 USPQ 1069. Furthermore, it is obvious to one having ordinary skill in the art to combine the separately-taught prior art ingredients which perform the same function since it is logical that they would produce the same effect and supplement each other. *In re Crockett and Hulme*, 126 USPQ 186 (CCPA 1960). Therefore, claims 14 and 15 are rejected as obvious over the cited prior art.

With respect to claim 16, Hudkins and Bell do not explicitly teach using a loss in weight feeder and underwater pelletizer to process the thermoplastic polymer. However, applicant is hereby given Official Notice that these apparatuses are well known in the art of polymer

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processing. Thus, it would have been obvious to one skilled in the art to employ said apparatuses to carry out the process of forming the recyclable thermoplastic floor mat according to Hudkins and Bell. Therefore, claim 16 is rejected.

With respect to claims 17 and 19, the cited prior art does not explicitly teach the claimed extrusion temperature, pressing temperature, and pressing time. However, it is argued these limitations would have been obvious to one of ordinary skilled in the polymer art. Specifically, these limitations are process variables determined in part by the polymer composition. One would readily be able to determine the optimum process temperatures and time in order to produce a successful polymer product. It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 205 USPQ 215. Varying the extrusion temperature would effect the polymer flow rate, while pressing temperatures would determine the time required in the press and vice versa. One skilled in the art can readily determine the optimum conditions. Therefore, claims 17 and 19 are rejected.

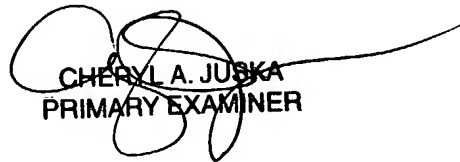
Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl Juska whose telephone number is 571-272-1477. The examiner can normally be reached on Monday-Friday 10am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached at 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


CHERYL A. JUSKA
PRIMARY EXAMINER

cj

September 14, 2004